Amendments to the Claims
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A microresistivity device, comprising:

a set of concentric electrodes, said set ~~including~~ comprising a first electrode, a second electrode outside the first electrode, a third electrode outside the second electrode, a fourth electrode outside the third electrode, a fifth electrode outside the fourth electrode, and a sixth electrode outside the fifth electrode; ~~,~~

wherein the first electrode emits a first current, and wherein a return for the first current is at least one of the fifth electrode or the sixth electrode.

~~wherein said first electrode lies inside said second electrode, said second electrode lies inside said third electrode, said third electrode lies inside said fourth electrode, said fourth electrode lies inside said fifth electrode, and said fifth electrode lies inside said sixth electrode.~~

2. (Currently Amended) The microresistivity device of claim 1, ~~said first electrode emitting a current, at least one of said fifth and sixth electrodes being a current return for said current,~~ wherein said second electrode measures a voltage corresponding to said first current.

3. (Currently Amended) The microresistivity device of claim 2, said voltage being linearly proportionate to a resistivity of a formation surrounding said microresistivity device, said resistivity being inversely proportionate to the magnitude of said first current.

4. (Currently Amended) The microresistivity device of claim 1, further comprising:

~~said first electrode emitting a first current, and~~ wherein said fourth electrode ~~emitting~~ emits a second current, and wherein a return for the second current is at least one of the fifth electrode or the sixth electrode; ~~at least one of said fifth and sixth electrodes being a current return for said first and second currents~~,

wherein a magnitude of at least one said first ~~and~~ or second currents ~~minimizing~~ adjust to

reduce a voltage between said second and third electrodes.

5. (Original) The microresistivity device of claim 4, wherein there exists a voltage at said second electrode that is linearly proportional to a resistivity of a formation surrounding said microresistivity device, said resistivity being inversely proportionate to said first current.

6. (Cancelled)

7. (Currently Amended) A microresistivity device, comprising:

a set of concentric electrodes, said set including comprising a first electrode, a second electrode outside the first electrode, a third electrode outside the second electrode, a fourth electrode outside the third electrode, a fifth electrode outside the fourth electrode, a sixth electrode outside the fifth electrode;

a tool mandrel; and~~The microresistivity device of claim 1, further comprising:~~

a seventh electrode located on the tool mandrel~~outside said sixth electrode,~~;

wherein said first electrode emits a combined first current and second current, said seventh electrode being a current return for said first current and said fourth electrode being a current return for said second current, at least one of said first ~~and~~ or second currents adjust to reduce ~~minimizing~~ a voltage between said fifth and sixth electrodes.

8. (Original) The microresistivity device of claim 7, wherein there exists a voltage at said second electrode that is linearly proportionate to a resistivity of a formation surrounding said microresistivity device, said resistivity being inversely proportionate to said first current.

9. (Currently Amended) The microresistivity device of claim 7, wherein said voltage between said fifth and sixth electrodes is substantially zero.

10. (Cancelled)

11. (Original) The microresistivity device of claim 1, further comprising:

a pad suitable to be pressed against a borehole wall,

wherein said first electrode, said second electrode, said third electrode, said fourth electrode, said fifth electrode, and said sixth electrode are located on said pad.

12. (Currently Amended) A microresistivity device, comprising:

a set of concentric electrodes, said set comprising a first electrode, a second electrode outside the first electrode, a third electrode outside the second electrode, a fourth electrode outside the third electrode, a fifth electrode outside the fourth electrode, a sixth electrode outside the fifth electrode; and ~~The microresistivity device of claim 1, further comprising:~~

a seventh electrode outside said sixth electrode,

wherein said first electrode emits a first current, said fourth electrode emits a second current, and at least one of said fifth ~~and~~ or sixth electrodes emits a third current, said seventh electrode being a current return for said first, second and third currents, at least one of said first, second, ~~and~~ or third currents ~~minimizing~~ adjust to reduce a voltage between said second and third electrodes.

13. (Original) The microresistivity device of claim 12, wherein there exists a voltage at said second electrode that is linearly proportionate to a resistivity of a formation surrounding said microresistivity device, said resistivity being inversely proportionate to said first current.

14. (Currently Amended) The microresistivity device of claim 12, wherein said voltage between said second and third electrodes ~~electrodes~~ is substantially zero.

15. (Currently Amended) A microresistivity tool for measuring at multiple depths into a formation, said microresistivity tool comprising:

a tool body having a length; and

a set of electrodes on said tool body, said set of electrodes ~~including~~ comprising a first electrode, a second electrode, a third electrode, a fourth electrode, a fifth electrode, and a sixth electrode arranged linearly with respect to said length;

wherein said first electrode is a current source.

16. (Currently Amended) The microresistivity tool of claim 15, wherein said set of electrodes ~~includes~~ comprises paired electrodes that are ~~short-circuited~~ coupled together to provide a compensated measurement.

17. (Original) The microresistivity tool of claim 15, further comprising:

a seventh electrode not located on said tool body.

18. (Currently Amended) The microresistivity tool of claim 15, at least one of said fifth ~~and~~ or sixth electrodes being a current return for said current, wherein said second electrode measures a voltage corresponding to said current.

19. (Original) The microresistivity tool of claim 18, said voltage being linearly proportionate to a resistivity of a formation surrounding said microresistivity tool, said resistivity being inversely proportionate to the magnitude of said current.

20. (Currently Amended) The microresistivity tool of claim 15, wherein said current from said first electrode is a first current, said fourth electrode emitting a second current, at least one of said fifth ~~and~~ or sixth electrodes being a current return for said first and second currents, at least one of said first ~~and~~ or second currents ~~minimizing~~ adjust to reduce a voltage between said second and third electrodes.

21. (Original) The microresistivity tool of claim 20, wherein there exists a voltage at said second electrode that is linearly proportional to a resistivity of a formation surrounding said microresistivity tool, said resistivity being inversely proportionate to said first current.

22. (Cancelled)

23. (Currently Amended) The microresistivity tool of claim 15, further comprising:

a seventh electrode,

wherein said first electrode emits a combined first current and second current, said seventh electrode being a current return for said first current and said fourth electrode being a current return for said second current, at least one of said first ~~and~~ or second currents ~~minimizing~~ adjusted to reduce a voltage between said fifth and sixth electrodes.

24. (Original) The microresistivity tool of claim 23, wherein there exists a voltage at said second electrode that is linearly proportionate to a resistivity of a formation surrounding said microresistivity tool, said resistivity being inversely proportionate to said first current.

25. (Currently Amended) The microresistivity tool of claim 23, wherein said voltage between said fifth and sixth electrodes is substantially zero.

26. (Currently Amended) The microresistivity tool of claim 15, further comprising:

a seventh electrode,

wherein said first electrode emits a first current, said fourth electrode emits a second current, and at least one of said fifth ~~and~~ or sixth electrodes emits a third current, said seventh electrode being a current return for said first, second and third currents, at least one of said first, second, ~~and~~ or third currents ~~minimizing~~ adjust to reduce a voltage between said second and third electrodes.

27. (Original) The microresistivity tool of claim 26, wherein there exists a voltage at said second electrode that is linearly proportionate to a resistivity of a formation surrounding said microresistivity tool, said resistivity being inversely proportionate to said first current.

28. (Currently Amended) The microresistivity tool of claim 26, wherein said voltage between said second and third electrodes ~~electrodes~~ is substantially zero.

29. (Original) The microresistivity tool of claim 15, said tool body being a pad.

30. (Currently Amended) A method to determine a flushed zone resistivity behind a borehole wall formed by a borehole, comprising:

inserting a resistivity measurement device into said borehole;

measuring a first resistivity at a first distance from said resistivity measurement device;

measuring a second resistivity at a second distance from said resistivity measurement device;

measuring a third resistivity at a third distance from said resistivity measurement device;

measuring a fourth resistivity at a fourth distance from said resistivity measurement device;

calculating said flushed zone resistivity from one or more of said measured first resistivity, said second resistivity, said third resistivity, ~~and~~ or said fourth resistivity, said flushed zone being a region of formation invaded by drilling fluid.

31. (Original) The method of claim 30, wherein a ratio between said flushed zone resistivity and a resistivity of said drilling fluid is greater than ten thousand.

32. (Original) The method of claim 30, further comprising:

calculating at least one of a standoff distance, a mudcake thickness, drilling fluid resistivity, and a mudcake resistivity from said measured first resistivity, said second resistivity, said third resistivity, and said fourth resistivity, said standoff distance and said mudcake thickness being regions between said resistivity measurement device and said borehole wall.

33. (Currently Amended) The method of claim 32, wherein said calculating ~~includes~~ comprises calculating all of said standoff distance, said mudcake thickness, said drilling fluid resistivity, and said mudcake resistivity from said measured first resistivity, said second resistivity, said third resistivity, and said fourth resistivity.

34. (Currently Amended) The method of claim 30, wherein ~~said step of~~ calculating is by use of inversion.

35. (Currently Amended) The method of claim 30, said microresistivity measurement device ~~including~~ comprising at least seven electrodes.

36. (Original) The method of claim 30, further comprising:
measuring a fifth resistivity at a fifth distance from said resistivity measurement device; and
measuring a sixth resistivity at a sixth distance from said resistivity measurement device.